RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: US/09/765,555B
Source: IFW16
Date Processed by STIC: 12-16-04

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IFW16

RAW SEQUENCE LISTING DATE: 12/16/2004
PATENT APPLICATION: **US/09/765,555B** TIME: 10:54:13

Input Set : **D:\27801-20014.20 - Sub Seqlist.txt**
Output Set: **N:\CRF4\12162004\I765555B.raw**

<110> APPLICANT: BARBAS, Carlos
STEGE, Justin
GUAN, Xueni
DALMIA, Bipin
<120> TITLE OF INVENTION: METHODS AND COMPOSITIONS TO MODULATE EXPRESSION IN PLANTS
<130> FILE REFERENCE: 27801-20014.20
<140> CURRENT APPLICATION NUMBER: 09/765,555B
<141> CURRENT FILING DATE: 2001-01-19
<150> PRIOR APPLICATION NUMBER: 09/620,897
<151> PRIOR FILING DATE: 2000-07-21
<150> PRIOR APPLICATION NUMBER: US 60/177,468
<151> PRIOR FILING DATE: 2000-01-21
<160> NUMBER OF SEQ ID NOS: 78
<170> SOFTWARE: FastSEQ for Windows Version 4.0
<210> SEQ ID NO: 1
<211> LENGTH: 532
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Promoter CsVMV
<400> SEQUENCE: 1
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acgggaaaaa ctatggaagt attatgtgag ctcagcaaga agcagatcaa tatgcggcac 120
atatgcaacc tatgttcaaa aatgaagaat gtacagatac aagatcctat actgccagaa 180
tacgaagaag aatacgtaga aattgaaaaa gaagaaccag gcgaagaaaa gaatcttgaa 240
gacgtaagca ctgacgacaa caatgaaaag aagaagataa ggtcggtgat tgtgaaagag 300
acatagagga cacatgtaag gtggaaaatg taagggcgga aagtaacctt atcacaaagg 360
aatcttatcc cccactactt atcctttttat atttttccgt gtcatttttg cccttgagtt 420
ttcctatata aggaaccaag ttcggcattt gtgaaaacaa gaaaaaattt ggtgtaagct 480
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<210> SEQ ID NO: 2
<211> LENGTH: 18
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Zinc finger protein 2C7 binding site
<400> SEQUENCE: 2
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<210> SEQ ID NO: 3
<211> LENGTH: 51
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence

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61 <220> FEATURE:
62 <223> OTHER INFORMATION: Promoter pc7rbTATA
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68 <211> LENGTH: 3121
69 <212> TYPE: DNA
70 <213> ORGANISM: Artificial Sequence
72 <220> FEATURE:
73 <223> OTHER INFORMATION: pND3008 coding region
75 <400> SEQUENCE: 4
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77 aaattaccac atatttttt tgtcacactt gtttgaagtg cagtttatct atctttatac 120
78 atatatttaa actttactct acgaataata taatctatag tactacaata atatcagtgt 180
79 tttagagaat catataaatg aacagttaga catggtctaa aggacaattg agtattttga 240
80 caacaggact ctacagtttt atctttttag tgtgcatgtg ttctcctttt tttttgcaaa 300
81 tagcttcacc tatataatac ttcatccatt ttattagtac atccatttag ggtttagggt 360
82 taatggtttt tatagactaa ttttttttagt acatctattt tattctattt tagcctctaa 420
83 attaagaaaa ctaaaactct attttagttt ttttatttaa taatttagat ataaaataga 480
84 ataaaataaa gtgactaaaa attaaacaaa taccctttaa gaaattaaaa aaactaagga 540
85 aacatttttc ttgtttcgag tagataatgc cagcctgtta aacgccgtcg acgagtctaa 600
86 cggacaccaa ccagcgaacc agcagcgtcg cgtcgggcca agcgaagcag acggcacggc 660
87 atctctgtcg ctgcctctgg acccctctcg agagttccgc tccaccgttg gacttgctcc 720
88 gctgtcggca tccagaaatt gcgtggcgga gcggcagacg tgagccggca cggcaggcgg 780
89 cctcctcctc ctctcacggc acggcagcta cgggggattc ctttcccacc gctccttcgc 840
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91 tcgtgttgtt cggagcgcac acacacacaa ccagatctcc cccaaatcca cccgtcggca 960
92 cctccgcttc aaggtacgcc gctcgtcctc ccccccccc cctctctacc ttctctagat 1020
93 cggcgttccg gtccatggtt agggcccggt agttctactt ctgttcatgt ttgtgttaga 1080
94 tccgtgtttg tgttagatcc gtgctgctag cgttcgtaca cggatgcgac ctgtacgtca 1140
95 gacacgttct gattgctaac ttgccagtgt ttctctttgg ggaatcctgg gatggctcta 1200
96 gccgttccgc agacgggatc gatttcatga ttttttttgt ttcgttgcat agggtttggt 1260
97 ttgccctttt cctttatttc aatatatgcc gtgcacttgt ttgtcgggtc atcttttcat 1320
98 gctttttttt gtcttggttg tgatgatgtg gtctggttgg gcggtcgttc tagatcggag 1380
99 tagaattctg tttcaaacta cctggtggat ttattaattt tggatctgta tgtgtgtgcc 1440
100 atacatattc atagttacga attgaagatg atggatggaa atatcgatct aggataggta 1500
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103 tcaaactacc tggtgtattt attaattttg gaactgtatg tgtgtgtcat acatcttcat 1680
104 agttacgagt ttaagatgga tggaaatatc gatctaggat aggtatacat gttgatgtgg 1740
105 gttttactga tgcatataca tgatggcata tgcagcatct attcatatgc tctaaccttg 1800
106 agtacctatc tattataata aacaagtatg ttttataatt attttgatct tgatatactt 1860
107 ggatgatggc atatgcagca gctatatgtg gatttttta gccctgcctt catacgctat 1920
108 ttatttgctt ggtactgttt cttttgtcga tgctcaccct gttgtttggt gttacttctg 1980
109 caggtcgact ctagaggatc tatggcccag gcggccctcg agctccccta tgcttgccct 2040
110 gtcgagtcct gcgatcgccg cttttctaag tcggctgatc tgaagcgcca tatccgcatc 2100
111 cacacaggcc agaagcccttt ccagtgtcga atatgcatgc gtaacttcag tcgtagtgac 2160
112 caccttacca cccacatccg cacccacaca ggcgagaagc cttttgcctg tgacatttgt 2220
113 gggaggaagt ttgccaggag tgatgaacgc aagaggcata ccaaaatcca taccggtgag 2280

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114 aagccctatg cttgccctgt cgagtcctgc gatcgccgct tttctaagtc ggctgatctg    2340
115 aagcgccata tccgcatcca cacaggccag aagcccttcc agtgtcgaat atgcatgcgt    2400
116 aacttcagtc gtagtgacca ccttaccacc cacatccgca cccacacagg cgagaagcct    2460
117 tttgcctgtg acatttgtgg gaggaagttt gccaggagtg atgaacgcaa gaggcatacc    2520
118 aaaatccatt taagacagaa ggactctaga actagtggcc aggccggcca ggctagcccg    2580
119 aaaaagaaac gcaaagttgg gcgcgccgac gcgctggacg atttcgatct cgacatgctg    2640
120 ggttctgatg ccctcgatga ctttgacctg gatatgttgg gaagcgacgc attggatgac    2700
121 tttgatctgg acatgctcgg ctccgatgct ctggacgatt tcgatctcga tatgttaatt    2760
122 aactacccgt acgacgttcc ggactacgct tcttgagaat tcgcggccgc gggcccgagc    2820
123 ctagggagga gctcaagatc ccccgaattt ccccgatcgt tcaaacattt ggcaataaag    2880
124 tttcttaaga ttgaatcctg ttgccggtct tgcgatgatt atcatctaat ttctgttgaa    2940
125 ttacgttaag catgtaataa ttaacatgta atgcatgacg ttatttatga gatgggtttt    3000
126 tatgattaga gtcccgcaat tatacattta atacgcgata gaaaacaaaa tatagcgcgc    3060
127 aaactaggat aaattatcgc gcgcggtgtc atctatgtta ctagatccgg gaattgggta    3120
128 c                                                                  3121
130 <210> SEQ ID NO: 5
131 <211> LENGTH: 3069
132 <212> TYPE: DNA
133 <213> ORGANISM: Artificial Sequence
135 <220> FEATURE:
136 <223> OTHER INFORMATION: pND3018 coding redion
138 <400> SEQUENCE: 5
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140 aaattaccac atatttttt tgtcacactt gtttgaagtg cagtttatct atctttatac     120
141 atatatttaa actttactct acgaataata taatctatag tactacaata atatcagtgt     180
142 tttagagaat catataaatg aacagttaga catggtctaa aggacaattg agtattttga     240
143 caacaggact ctacagtttt atctttttag tgtgcatgtg ttctcctttt tttttgcaaa     300
144 tagcttcacc tatataatac ttcatccatt ttattagtac atccatttag ggtttagggt     360
145 taatggtttt tatagactaa tttttttagt acatctattt tattctattt tagcctctaa     420
146 attaagaaaa ctaaaactct attttagttt ttttatttaa taatttagat ataaaatага     480
147 ataaaataaa gtgactaaaa attaaacaaa tacccttaa gaaattaaaa aaactaagga     540
148 aacatttttc ttgtttcgag tagataatgc cagcctgtta aacgccgtcg acgagtctaa     600
149 cggacaccaa ccagcgaacc agcagcgtcg cgtcgggcca agcgaagcag acggcacggc     660
150 atctctgtcg ctgcctctgg acccctctcg agagttccgc tccaccgttg gacttgctcc     720
151 gctgtcggca tccagaaatt gcgtggcgga gcggcagacg tgagccggca cggcaggcgg     780
152 cctcctcctc ctctcacggc acggcagcta cgggggattc ctttcccacc gctccttcgc     840
153 tttcccttcc tcgcccgccg taataaatag acacccccctc cacaccctct ttccccaacc     900
154 tcgtgttgtt cggagcgcac acacacacaa ccagatctcc cccaaatcca cccgtcggca     960
155 cctccgcttc aaggtacgcc gctcgtcctc ccccccccc cctctctacc ttctctagat    1020
156 cggcgttccg gtccatggtt agggcccggt agttctactt ctgttcatgt ttgtgttaga    1080
157 tccgtgtttg tgttagatcc gtgctgctag cgttcgtaca cggatgcgac ctgtacgtca    1140
158 gacacgttct gattgctaac ttgccagtgt ttctctttgg ggaatcctgg gatggctcta    1200
159 gccgttccgc agacgggatc gatttcatga tttttttgt ttcgttgcat agggtttggt    1260
160 ttgccctttt cctttatttc aatatatgcc gtgcacttgt ttgtcgggtc atcttttcat    1320
161 gctttttttt gtcttggttg tgatgatgtg gtctggttgg gcggtcgttc tagatcggag    1380
162 tagaattctg tttcaaacta cctggtggat ttattaattt tggatctgta tgtgtgtgcc    1440
163 atacatattc atagttacga attgaagatg atggatggaa atatcgatct aggataggta    1500
164 tacatgttga tgcgggtttt actgatgcat atacagagat gctttttgtt cgcttggttg    1560
165 tgatgatgtg gtgtggttgg gcggtcgttc attcgttcta gatcggagta gaatactgtt    1620
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166 tcaaactacc tggtgtattt attaattttg gaactgtatg tgtgtgtcat acatcttcat   1680
167 agttacgagt ttaagatgga tggaaatatc gatctaggat aggtatacat gttgatgtgg   1740
168 gttttactga tgcatataca tgatggcata tgcagcatct attcatatgc tctaaccttg   1800
169 agtacctatc tattataata aacaagtatg ttttataatt attttgatct tgatatactt   1860
170 ggatgatggc atatgcagca gctatatgtg gatttttta gccctgcctt catacgctat   1920
171 ttatttgctt ggtactgttt cttttgtcga tgctcaccct gttgtttggt gttacttctg   1980
172 caggtcgact ctagaggatc cactagtgag ccatgggcta gcatggccgc tgccgtgcgc   2040
173 atgaacatcc agatgctgct cgaagccgct gattatctgg aacgccggga gcgcgaagcc   2100
174 gagcacggct acgccagcat gctgccatat ccgaaaaaga aacgcaaggt ggcccaggcg   2160
175 gccctcgagc tcccctatgc ttgccctgtc gagtcctgcg atcgccgctt ttctaagtcg   2220
176 gctgatctga agcgccatat ccgcatccac acaggccaga agcccttcca gtgtcgaata   2280
177 tgcatgcgta acttcagtcg tagtgaccac cttaccaccc acatccgcac ccacacaggc   2340
178 gagaagcctt ttgcctgtga catttgtggg aggaagtttg ccaggagtga tgaacgcaag   2400
179 aggcatacca aaatccatac cggtgagaag ccctatgctt gccctgtcga gtcctgcgat   2460
180 cgccgctttt ctaagtcggc tgatctgaag cgccatatcc gcatccacac aggccagaag   2520
181 cccttccagt gtcgaatatg catgcgtaac ttcagtcgta gtgaccacct taccacccac   2580
182 atccgcaccc acacaggcga gaagcctttt gcctgtgaca tttgtgggag gaagtttgcc   2640
183 aggagtgatg aacgcaagag gcataccaaa atccatttaa gacagaagga ctctagaact   2700
184 agtggccagg ccggccagta cccgtacgac gttccggact acgcttcttg aaagcttggt   2760
185 accgagctcg gatcccccga atttccccga tcgttcaaac atttggcaat aaagtttctt   2820
186 aagattgaat cctgttgccg gtcttgcgat gattatcatc taatttctgt tgaattacgt   2880
187 taagcatgta ataattaaca tgtaatgcat gacgttattt atgagatggg tttttatgat   2940
188 tagagtcccg caattataca tttaatacgc gatagaaaac aaaatatagc gcgcaaacta   3000
189 ggataaatta tcgcgcgcgg tgtcatctat gttactagat ccgggaattc cggaccggta   3060
190 ccagcggcc                                                          3069
192 <210> SEQ ID NO: 6
193 <211> LENGTH: 156
194 <212> TYPE: DNA
195 <213> ORGANISM: Artificial Sequence
197 <220> FEATURE:
198 <223> OTHER INFORMATION: 6X2C7 binding site
200 <400> SEQUENCE: 6
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202 ggcggcgtgg gcgactagtg ctagcgcgtg ggcggcgtgg gcgaacaagc gtgggcggcg    120
203 tgggcgaaca agcgtgggcg gcgtgggcga ctagtg                             156
205 <210> SEQ ID NO: 7
206 <211> LENGTH: 18
207 <212> TYPE: DNA
208 <213> ORGANISM: Artificial Sequence
210 <220> FEATURE:
211 <223> OTHER INFORMATION: ZFPAp3
213 <400> SEQUENCE: 7
214 gatggagttg aagaagta                                                  18
216 <210> SEQ ID NO: 8
217 <211> LENGTH: 21
218 <212> TYPE: DNA
219 <213> ORGANISM: Artificial Sequence
221 <220> FEATURE:
222 <223> OTHER INFORMATION: ZFP from -85 to -65
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227 <210> SEQ ID NO: 9
228 <211> LENGTH: 18
229 <212> TYPE: DNA
230 <213> ORGANISM: Artificial Sequence
232 <220> FEATURE:
233 <223> OTHER INFORMATION: ZFPm1 from -68 to -85
235 <400> SEQUENCE: 9
236 tgagaggagg aaggaggc 18
238 <210> SEQ ID NO: 10
239 <211> LENGTH: 18
240 <212> TYPE: DNA
241 <213> ORGANISM: Artificial Sequence
243 <220> FEATURE:
244 <223> OTHER INFORMATION: ZFPm2 from -65 to -82
246 <400> SEQUENCE: 10
247 gagtgagagg aggaagga 18
249 <210> SEQ ID NO: 11
250 <211> LENGTH: 24
251 <212> TYPE: DNA
252 <213> ORGANISM: Artificial Sequence
254 <220> FEATURE:
255 <223> OTHER INFORMATION: ZFP from 294 to 317
257 <400> SEQUENCE: 11
258 gccaactact acggctccct cacc 24
260 <210> SEQ ID NO: 12
261 <211> LENGTH: 18
262 <212> TYPE: DNA
263 <213> ORGANISM: Artificial Sequence
265 <220> FEATURE:
266 <223> OTHER INFORMATION: ZFPm3 from 311 to 294
268 <400> SEQUENCE: 12
269 ggagccgtag tagttggc 18
271 <210> SEQ ID NO: 13
272 <211> LENGTH: 18
273 <212> TYPE: DNA
274 <213> ORGANISM: Artificial Sequence
276 <220> FEATURE:
277 <223> OTHER INFORMATION: ZFPm4 from 317 to 300
279 <400> SEQUENCE: 13
280 ggtgagggag ccgtagta 18
282 <210> SEQ ID NO: 14
283 <211> LENGTH: 3300
284 <212> TYPE: DNA
285 <213> ORGANISM: Artificial Sequence
287 <220> FEATURE:
288 <223> OTHER INFORMATION: Partial sequence of pMal-m1 and zinc finger
289 protein ZFPm1

VERIFICATION SUMMARY DATE: 12/16/2004
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